Killer Hardware Tips

Too Cool To Follow Rules

If you're a user who can't leave things alone if there's a chance you can make them better, even if it means bucking the norm, read on. We have some tips and tricks that just might help your system look cooler and make you more productive.

Change What It Means To Run Windows

So you've tricked out your PC with the latest video card, pretty rounded cables, and other gadgetry. Don't go and stuff that beautiful techno-wizardry into a sealed aluminum box. Show it off by installing a window in the case. Then add a light to illuminate those components.

"Those who spend a lot of time tweaking and upgrading often install a window to show off the internals," says James Cameron, spokesperson for PC Case Gear (www.pccasegear.com). "We've seen more than one happy GeForce3 owner who has installed a window purely to show off the latest hardware. Another customer used a window to display an elaborate water-cooled setup that he had personally installed. LaserLEDs were strategically placed to highlight the radiator and waterblock."

Installing a window involves cutting a hole in the case's side with a jigsaw or rotary cutting tool. An acrylic or other clear plastic sheet fills the gap, which is then sealed with rubber molding.

Two popular choices for the lights are neon and cold cathode, which is a type of fluorescent light that's brighter and more compact than neon lights. It's also much more expensive. At PC Case Gear, a cold cathode kit costs $89, while neon costs only $38. The light resides inside the case and gets juice from the PC's power supply. Both types of light are available in a rainbow of colors, including ultraviolet neon for a black-light effect. Neon and cold cathode illuminate a large area, while LaserLEDs can provide spot lighting for your favorite components. You can find window and light kits at www.pcmods.com, PC Case Gear, and other sites.

Can you illuminate your PC without buying a kit? You probably won't find cold cathode lights at a hardware store, but for acrylic windows and standard neon, "it is possible to do this yourself using commonly available parts," Cameron says.

Would you like a window seat? Add some flare to your PC (and show off your boss state-of-the-art components) by fitting the system's case with a transparent window and installing internal lights.

I Need Some More, Uh, What's It Called Again?

Last year, computer memory prices sagged and dipped, and just when everyone thought they were as low as they could get, they dropped even more. If you have a few dollars in your wallet—heck, if you find some loose change in the couch cushions—now is the time to buy more RAM.

RAM prices have been driven down by that Economics 101 standard: supply and demand. PC manufacturers are the largest buyers of memory, but as we all know, demand for new PCs has fallen. Now memory manufacturers have a glut of RAM on their hands.

To find the best memory deals, visit DealRam (www.dealram.com), a price comparison service dedicated to computer memory. But before you buy, determine if you'll need to upgrade to a motherboard that's compatible with DDR-RAM. DDR provides twice the bandwidth of PC133 RAM, which translates to a 10% to 20% gain in real-life performance.

Not all major PC manufacturers have jumped on the DDR bandwagon yet. "But we expect them to," says Erin Hurley, spokesperson for memory retailer Crucial Technology (www.crucial.com). Why the delay? At first, DDR was practically synonymous with AMD processors. Those days are over. Intel is expected to

release its new DDR-compatible chipset, dubbed 845 DDR, in January.

"Those who build only with Intel components have had to wait for DDR technology because the P4 was first designed with Rambus technology. This forced a few major PC manufacturers to choose the more expensive Rambus technology to keep up with the curve. However, AMD has been pushing DDR technology for the past several months, and we have seen many of these major PC manufacturers choose the AMD/DDR solution as a less expensive alternative to performance PC computing," Hurley says.

The SiS645 chipset is to support both SDRAM and DDR, so you can slap in whatever memory modules you have handy. "When Intel releases their P4/DDR chipset, we expect the remaining PC manufacturers to adopt DDR technology in their performance and budget PC product lines," Hurley says. As a result, Crucial expects the popularity of DDR to surpass PC133 for good.

Give It Away Wirelessly

Sure, a wireless network that connects all your home computers to a broadband Internet connection is cool, but those Wi-Fi waves also reach beyond the walls of your home. A growing number of users are opening their wireless network to neighbors.

Free wireless community networks, known as OpenNAPs or freenets, are sprouting up all over. All it takes is a Wi-Fi (or 802.11b) router and a willingness to share your bandwidth with neighbors or passersby. Some users are even replacing the antennas on their routers with homebrew models—a favorite is a powerful yagi built from a Pringles can (check out www.oreillynet.com/cs/weblog/view/wlg/448).

Copious information about how to set up a wireless network and hack your own antenna is available from AirShare.org and WirelessAnarchy (www.wirelessanarchy.com). Run a captive portal or use "-open" as part of the network ID to make it clear to others your network is to be shared.

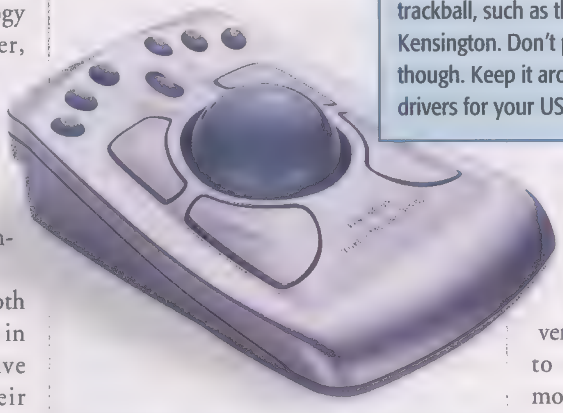
"Why not share a resource that does not have any incremental cost?" says Cliff Skolnick, a member of the Bay Area Wireless Users Group (www.bawug.org). "I've never gotten any compensation, but I know others who have gotten goodies backed by neighbors or cash informally from users." Skolnick maintains a list of public wireless networks in the San Francisco Bay Area (check out www.toaster.net/wireless/aplist.php). Sharing your Internet connection is a laudable idea, but make sure it's really yours to share. Your access provider's appropriate use policies may prohibit sharing access. If it does and you're caught, you won't have any Internet access to share, not to mention you could end up on the wrong end of a lawsuit.

"When someone sets up an unauthorized, wireless way to hook up friends or family members without charge, that is contrary to our service agreements. It is the same thing as cable theft and is against the law," says Mike Luftman, spokesperson for Time Warner Cable, which owns Road Runner.

Even if you're not into giving Internet access to every notebook user at the bus station down the block, improving the dinky antenna on your Wi-Fi router can have other advantages. We know of one user who built two directional antennas, mounted one on his roof at home and one at work two miles away, and now enjoys his office's lightning-fast Internet access from the comfort of his couch, with the boss' permission, of course.

A Rat's Nest Of Wireless Mice

The mouse is arguably the device with which we interact most; divorce the gummed-up ball and tangled cable. Wireless optical mice forgo cables, mouse pads, and ahem, dirty mouse balls. All the wireless mice we've looked at recently include a scroll wheel and use RF, typically working up to six feet away from the receiver.



Mouse gunk is a thing of the past with an optical mouse or trackball, such as the Turbo Mouse Pro Wireless from Kensington. Don't put your old PS/2 mouse out to pasture, though. Keep it around in case your system crashes and the drivers for your USB mouse won't load.

However, if your new wireless pointing device uses a USB connection, don't throw your old PS/2 mouse away just yet. USB mice aren't known to work when their drivers aren't loaded, such as when you have to boot in Safe Mode. Keep your old mouse around for backup.

Of the wireless mice we've seen recently, it's hard not to like Microsoft's Wireless IntelliMouse Explorer ($55 to $60; www.microsoft.com). It's attractive, nicely contoured, and has easy thumb access to two programmable buttons that by default act as forward and back buttons for your Web browser. It requires a USB port. If you're left-handed, the contour will annoy you. Go for the IntelliMouse Optical instead.

Logitech's Cordless MouseMan Optical ($50 to $55; www.logitech.com) is accurate, but there's only one extra button (a programmable thumb button). The mouse does work with both USB and PS/2 ports. Lefties should consider the Cordless Optical Mouse as an alternative.

Mice are nice, but so are trackballs. The Kensington Expert Mouse Pro Wireless (about $100; www.kensington.com) isn't actually a mouse, but a trackball. It features a 2-inch ball and has silky smooth rolling action. There are four programmable buttons, plus six more that will launch your favorite apps or Web sites. The model supports USB and PS/2 mouse ports and works well with either hand. Our only gripe is there's no low-battery indicator. CPU

by Kevin Savetz